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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,371

11/21/2003

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59643.00719

3587

32294 7590 06/06/2007  
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EXAMINER

SHINGLES, KRISTIE D

ART UNIT

PAPER NUMBER

2141

MAIL DATE

DELIVERY MODE

06/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/719,371

Applicant(s)

LIONG ET AL.

Examiner

Kristie D. Shingles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Response to Amendments

No claims have been amended or cancelled.

Claims 1 - 27 are pending.

### Response to Arguments

I. Applicant's arguments filed 3/8/2007 have been fully considered but they are not persuasive.

- A. **Regarding Claim 21:** Applicant argues that the cited prior art of record, *Basso et al* (US 2003/0231640), fails to teach “defining a customer policy that is configured to govern the treatment of individual customer traffic”.

Examiner respectfully disagrees. *Basso et al* clearly teach exacting a customer's quality of service policy by inspecting each IP packet to determine the type of quality of service treatment to be performed on the IP packet (*page 3 paragraphs 0025-0027*). Thus it is evident that *Basso et al* provides for governing the treatment of individual customer traffic, by determining from each IP packet what type of quality of service should be performed. Applicant's arguments are unpersuasive; therefore the rejection under the prior art is maintained.

- B. **Regarding Claim 21:** Applicant argues that the cited prior art of record, *Basso et al* (US 2003/0231640), fails to teach “deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy”.

Examiner respectfully disagrees. *Basso et al* teach deploying commands to specific router according to the policy and protocol supported by each router (*page 4 paragraphs 0029-0032*). However, as stated in the previous action, *Basso et al* fail to explicitly teach defining a customer policy and device-specific commands, wherein each policy target comprise a

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network device that includes an interface assigned a role name associated with the customer policy. However, *Edmondson* teaches assigning role name to router interfaces associated with specific customer policies, wherein the customer policies are translated in QoS command-line interface commands acceptable by the routers (*Figures 3A-3B; page 2 paragraphs 0018-0020 and 0023-0032; page 7 paragraph 0128; page 8 paragraphs 0133-0134*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Basso et al* with *Edmondson* for the purpose of associating the mapping policies, customer policies, and network policies with router interfaces and specific roles in order to determine the specific differential services and QoS treatment required for a particular data stream, because this provides efficient routing of data by servicing users from particular interfaces according to the collective policies that apply to them. Applicant's arguments are unpersuasive; therefore the rejection under the prior art is maintained.

- C. **Regarding Claims 2, 12, 20 and 27:** Applicant argues that the cited prior art of record, *Chase et al* (US 7,120,150), fails to teach “defining a customer policy that is configured to govern the treatment of individual customer traffic and deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy”.

Examiner respectfully disagrees. In the previous action, *Basso et al* and *Edmondson* in view of *Chase et al*, is used to address the limitations of claims 2, 12, 20 and 27 for teaching a tunnel group identifier and tunneling mode by mapping frames into different MPLS tunnels according to customer descriptor of each frame in order to route frame onto separate tunnels to the intended customer (*Figure 6, col.2 lines 14-37, col.4 line 45-col.5 line 5, col.5 line 32-col.6 line 19*). The limitations of “defining a customer policy that is configured to govern the treatment of individual customer traffic and deploying the device-specific commands

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to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy” are addressed in *Basso et al* and *Edmonson* as presented above in items A and B.

### Claim Rejections - 35 USC § 103

II. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

III. **Claims 1, 3-11, 13-19 and 21-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Basso et al* (US 2003/0231640) in view of *Edmondson* (US 2004/0117613).

a. Per claim 21, *Basso et al* teach the method for configuring Diffserv over MPLS in a network, comprising:

- defining a mapping policy configured to map between an EXP field and a unique PHB (*page 1 paragraphs 0006 and 0009; page 2 paragraphs 0010-0012 and 0015—provision for routing policies mapped between EXP fields and a PHB*);
- defining a network policy that is configured to define the Diffserv treatment of aggregated traffic (*pages 2-3 paragraphs 0023 and 0025; provision for network Diffserv policies*);
- translating the mapping policy and the network policy into device-specific commands (*page 4 paragraphs 0029-0032; pages 5-6 paragraph 0042*); and
- deploying the device-specific commands to policy targets (*page 4 paragraphs 0028-0032; pages 5-6 paragraph 0042*).

Yet *Basso et al* yet fail to explicitly teach defining a customer policy and device-specific commands, wherein each policy target comprise a network device that includes an interface assigned a role name associated with the customer policy. However, *Edmondson* teaches assigning role name to router interfaces associated with specific customer policies, wherein the customer policies are translated in QoS command-line interface commands acceptable by the routers (*Figures 3A-3B; page 1 paragraph 0011; page 2 paragraphs 0018-0020 and 0023-0032; page 7 paragraph 0128; page 8 paragraphs 0133-0134*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Basso et al* with *Edmondson* for the purpose of associating the mapping policies, customer policies, and network policies with router interfaces and specific roles in order to determine the specific differential services and QoS treatment required for a particular data stream, because this provides efficient routing of data by servicing users from particular interfaces according to the collective policies that apply to them.

b. **Claims 1, 5, 11 and 14** contain limitations that are substantially similar to claim 21 and are therefore rejected under the same basis.

c. **Per claim 6**, *Basso et al* with *Edmondson* teach the apparatus of claim 5, *Edmondson* further teaches the apparatus further comprising: a user interface that is arranged to receive the customer policy and the mapping policy (*Abstract; page 1 paragraphs 0010-0011; page 2 paragraphs 0019-0022*).

d. **Per claim 7**, *Basso et al* with *Edmondson* teach the apparatus of claim 5, *Basso et al* further teach wherein deployment is such that the interfaces associate with at least one of input roles, output roles and MPLS gateways of customer source and destination host groups (*paragraphs 0028-0032, 0042; Edmondson: page 2 paragraphs 0022-0032; page 3 paragraphs 0058-0065*).

e. **Per claim 8**, *Basso et al* with *Edmondson* teach the apparatus of claim 5, *Basso et al* further teach wherein the policy consumer is further arranged to attach the customer policy to the corresponding MPLS tunnels and deploy the customer policy to interfaces of the attached MPLS tunnels (*paragraphs 0028-0033, 0042; Edmondson: page 2 paragraphs 0020 and 0032; pages 7-8 paragraphs 0131-0134*).

f. **Claims 3, 4, 13, 18, and 25** are substantially similar to claims 7 and 8 and are therefore rejected under the same basis.

g. **Per claim 9**, *Basso et al* with *Edmondson* teach the apparatus of claim 5, *Edmondson* further teaches the apparatus further comprising a database for storing the device-neutral policy parameters (*pages 7-8 paragraphs 0130-0131*).

h. **Claims 17 and 24** are substantially similar to claim 9 and are therefore rejected under the same basis.

i. **Per claim 10**, *Basso et al* with *Edmondson* teach the apparatus of claim 5, *Basso et al* further teach wherein the service application comprises a tunnel group object that is arranged to create the MPLS tunnels by specifying end-point routers and inter-connecting topology (*paragraphs 0006-0009, 0024, 0026, 0028-0033, 0037-0042*).

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j. **Per claim 15**, *Basso et al* with *Edmondson* teach the article of claim 14, *Basso et al* further teach wherein executing the instructions further results in: generating device neutral information associated with the mapping policy, the network policy and the customer policy (*paragraphs 0028-0033, 0042; Edmondson: page 2 paragraph 0020; page 3 paragraphs 0068-0069; page 6 paragraphs 0111-0113; page 7 paragraphs 0117-0128*).

k. **Claims 16, 22 and 23** are substantially similar to claim 15 and are therefore rejected under the same basis.

l. **Per claim 19**, *Basso et al* with *Edmondson* teach the article of claim 14, *Edmondson* further teaches wherein deploying the mapping policy to the network interfaces further comprises issuing new commands to reconfigure a router based on the mapping policy (*pages 7-8 paragraphs 0117-0123, 0127-0129 and 0131; Basso et al: paragraphs 0026-0030, 0042*).

m. **Claim 26** is substantially similar to claim 19 and is therefore rejected under the same basis.

V. **Claims 2, 12, 20 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Basso et al* (US 2003/0231640) in view of *Edmondson* (US 2004/0117613) in further view of *Chase et al* (US 7,120,150).



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n. **Per claim 2**, *Basso et al* with *Edmondson* teach the system of claim 1, as applied above, *Edmondson* further teach traffic descriptors that are associated with the customer policies for generating access lists of different QoS treatments for the traffic at specific routers (*Figure 3E and page 2 paragraph 0020*). Yet, *Edmondson* fails to explicitly teach a tunnel group identifier and tunneling mode. However, *Chase et al* teach mapping frames into different MPLS tunnels according to customer descriptor of each frame in order to route frame onto separate tunnels to the intended customer (*Figure 6, col.2 lines 14-37, col.4 line 45-col.5 line 5, col.5 line 32-col.6 line 19*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Basso et al* and *Edmondson* with *Chase et al* for the purpose of implementing the mapping policies, customer policies, and network policies of MPLS within a large network, such as a metropolitan area network (MAN), in order to provide the means for logically separating traffic of network based on the Service Level Agreement between the communications service provider and the customer for servicing customers according to the different QoS levels specified for the different traffic types.

o. **Claims 12, 20 and 27** are substantially similar to claim 2 and are therefore rejected under the same basis.

### Conclusion

V. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: *Pirot et al* (6,856,676), *McDysan et al* (7,046,680), *Balay et al* (7,116,665), *Stelliga* (6,625,650), *Abdelilah et al* (6,940,864).

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**VI. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**VII.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie D. Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday 8:00am-5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Kristie D Shingles*  
*Examiner*  
*Art Unit 2141*

*kds*



**RUPAL DHARIA**  
**SUPERVISORY PATENT EXAMINER**